

Patent claims

1. A sensor transponder (1) with a facility for transmitting measurement data from a tyre (9) to a receiving facility and at least one acceleration sensor, **characterised in that** the sensor transponder (1) is fitted on an inner side of the running surface (2) of the tyre (9).
2. A sensor transponder (1) according to claim 1, **characterised in that** as a receiving facility, a receiving antenna is fitted, which is preferably arranged in a vehicle.
3. A sensor transponder (1) according to claim 2, **characterised in that** the receiving antenna is also designed as a transmitting antenna.
4. A sensor transponder (1) according to any one of the above claims, **characterised in that** the sensor transponder (1) comprises a memory for tyre-specific parameters.
5. A sensor transponder (1) according to any one of the above claims, **characterised in that** the sensor transponder (1) comprises at least one pressure sensor.
6. A sensor transponder (1) according to any one of the above claims, **characterised in that** the sensor transponder (1) comprises at least one temperature sensor.
7. A sensor transponder (1) according to any one of the above claims, **characterised in that** a central unit is fitted and the evaluation of the signals from the sensor transponder (1) is conducted in the central unit.
8. A procedure for calculating a tyre contact length (6), whereby a sensor transponder (1) is fitted with at least one acceleration sensor arranged on the inner side of a running surface (2) of a tyre (9), the signals from the acceleration sensor are compared with threshold values and are then integrated, and the tyre contact length (6) is calculated independently of the velocity using quotient formation.
9. A procedure according to claim 8, **characterised in that** the tyre contact area (tread) is calculated from the tyre contact length (6) using tyre-specific parameters.
10. A procedure according to claim 9, **characterised in that** the wheel load is calculated using the tyre contact area and the tyre pressure.